

AMENDMENTS TO THE CLAIMS

Claim 1 (Currently amended): A method of screening for an agent that modulates the uptake of glutamate into a cell, said method comprising:

- i) contacting a cell comprising a VGLUT3 nucleic acid ~~selected from the group consisting of VGLUT1, VGLUT2, and VGLUT3~~ with a test agent; and
- ii) detecting expression or activity of ~~VGLUT1, VGLUT2, or said~~ VGLUT3 where an increase or decrease in the expression or activity of ~~VGLUT1, VGLUT2, or said~~ VGLUT3 as compared to a control indicates that said test agent modulates the uptake of glutamate into a ~~synaptic vesicle~~ cell.

Claim 2 (Currently amended): The method of claim 1, wherein said control is a negative control comprising contacting a cell at a lower concentration of said test agent or in the absence of said test agent.

Claim 3 (Original): The method of claim 2, wherein said lower concentration is the absence of said test agent.

Claim 4 (Original): The method of claim 1, wherein said cell is a somatic cell.

Claim 5 (Original): The method of claim 1, wherein said cell is an oocyte.

Claim 6 (Original): The method of claim 1, wherein said cell is a nerve cell.

Claim 7 (Original): The method of claim 1, wherein said cell is a vertebrate cell.

Claim 8 (Original): The method of claim 7, wherein said cell is a mammalian cell.

Claim 9 (Original): The method of claim 7, wherein said cell is a human cell.

Claim 10 (Canceled).

Claim 11 (Currently amended): The method of claim 1, wherein said detecting comprises detecting a ~~VGLUT1 polypeptide, a VGLUT2 polypeptide, or a VGLUT3 polypeptide~~.

Claims 12-15 (Canceled).

Claim 16 (Currently amended): The method of claim 11, wherein said detecting ~~a VGLUT1 polypeptide, a VGLUT2 polypeptide, or a VGLUT3 polypeptide~~ comprises a method selected from the group consisting of capillary electrophoresis, Western blot, mass spectroscopy, ELISA, immunochromatography, thin layer chromatography, and immunohistochemistry.

Claim 17 (Canceled).

Claim 18 (Original): The method of claim 1, wherein said test agent is not an antibody.

Claim 19 (Original): The method of claim 1, wherein said test agent is not a nucleic acid.

Claim 20 (Original): The method of claim 1, wherein said test agent is not a protein.

Claim 21 (Original): The method of claim 1, wherein said test agent is a small organic molecule.

Claims 22-37 (Canceled).

Claim 38 (Currently amended): A cell comprising a heterologous nucleic acid encoding a glutamate transporter wherein said glutamate transporter is ~~selected from the group consisting of VGLUT1, VGLUT2, and VGLUT3.~~

Claim 39 (Original): The cell of claim 38, wherein said cell is a mammalian cell.

Claim 40 (Original): The cell of claim 38, wherein said cell is a somatic cell.

Claim 41 (Original): The cell of claim 38, wherein said cell is an oocyte or a nerve cell.

Claim 42 (Original): The cell of claim 38, wherein said cell transports glutamate via said glutamate transporter.

Claim 43 (Original): The cell of claim 38, wherein said cell is a pheochromocytoma PC12 cell.

Claims 44-65 (Canceled).